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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/674,376	10/01/2003	Alok Mani Srivastava	136299	5188

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GENERAL ELECTRIC COMPANY  
GLOBAL RESEARCH  
PATENT DOCKET RM. BLDG. K1-4A.59  
NISKAYUNA, NY 12309

EXAMINER

KOSLOW, CAROL M

ART UNIT PAPER NUMBER

1755

DATE MAILED: 11/15/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/674,376

Applicant(s)

SRIVASTAVA ET AL.

Examiner

C. Melissa Koslow

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 18, 19, 21 and 22 is/are allowed.
- 6) ☒ Claim(s) 1, 9, 10, 12, 14, 16, 17 and 24 is/are rejected.
- 7) ☒ Claim(s) 2-8, 11, 13, 15, 20, 23, 25 and 26 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☒ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 10/1/04.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

The oath or declaration is defective. A new oath or declaration in compliance with 37 CFR 1.67(a) identifying this application by application number and filing date is required. See MPEP §§ 602.01 and 602.02.

The oath or declaration is defective because:  
Non-initialed and/or non-dated alterations have been made to the oath or declaration. See 37 CFR 1.52(c).

The disclosure is objected to because of the following informalities: It is unclear if all of the elements in the parenthesis in the formulas must be present or if at least one of the elements must be present. Appropriate correction is required.

Claims 20 and 23 are objected to because of the following informalities: The degree mark is missing from the temperature. Appropriate correction is required.

Claim 9 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventors, at the time the application was filed, had possession of the claimed invention.

This claim teaches the particle size of the second phosphor is in the range of about 1 to about 6 microns. Paragraph 30 teaches the particle size of the second phosphor is in the range of about 2 to about 6 microns. There is no other teaching of the particle size of the second phosphor in the specification. The discrepancy between the claimed size range of about 1-6 microns and that taught by the specification of about 2-6 microns needs to be corrected.

It is noted that claims 16 and 17 teach the particle size of the second phosphor is in the range of about 2 to about 6 microns.

Claims 10, 12, 14, 16 and 17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

It is unclear if all of the elements in the parenthesis in the formulas must be present or if at least one of the elements must be present.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1 and 24 are rejected under 35 U.S.C. 102(e) as being clearly anticipated by U.S. patent 6,734,631.

This patent teaches a light source comprising a source of plasma discharge that emits EM radiation, a portion of which has wavelengths shorter than about 200 nm; and a phosphor composition comprising a UV-C phosphors and phosphors that can be excited by UV-C radiation. UV-C phosphors are those that absorb wavelengths shorter than 200 nm and emit wavelengths longer than about 200 nm. The reference teaches the claimed light source and phosphor composition.

Claims 18, 19, 21 and 22 are allowable over the cited art of record.

Claims 2-8, 11, 13, 15, 25 and 26 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 16 and 17 would be allowable if rewritten or amended to overcome the rejection under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action.

Claims 9, 10, 12 and 14 would be allowable if rewritten to overcome the rejections under 35 U.S.C. 112, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Claims 20 and 23 would be allowable if rewritten or amended to overcome the objections set forth in this Office action.

There is no teaching or suggestion in the cited art of record of a phosphor composition comprising a first and second phosphor, where the first phosphor comprising a plurality of nanoparticles disposed around the second phosphor particle or where the first phosphor form a shell around the second phosphor particle and in both cases where the first phosphor absorbs wavelengths shorter than 200 nm and emits wavelengths longer than about 200 nm. Since this composition, which is defined in claims 25 and 26, is novel; light sources containing this composition are also novel, which are taught in claims 2-17. There is no teaching or suggestion of producing a light source by the methods in claims 18 and 21 where the phosphor composition comprising a first and second phosphor, where the first phosphor comprising a plurality of particles coating the second phosphor particle and where the first phosphor absorbs wavelengths shorter than 200 nm and emits wavelengths longer than about 200 nm.

The Technical Proposal supplied by applicants teaches the suggested claimed light source and coated phosphors, but figure 14 shows that the additional authors Uwe Happek, Anthony Sutorik, William Beers and Jon Jansma, are not inventors, but provided technical support. Accordingly, this reference cannot be used as prior art. Applicant's disclosure of his or

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her own work within the year before the application filing date cannot be used against him or her under 35 U.S.C. 102(a). *In re Katz*, 687 F.2d 450, 215 USPQ 14 (CCPA 1982).


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Melissa Koslow whose telephone number is (571) 272-1371. The examiner can normally be reached on Monday-Friday from 8:00 AM to 3:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Bell, can be reached at (571) 272-1362.

The fax number for all official communications is (703) 872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

cmk  
November 10, 2004

  
C. Melissa Koslow  
Primary Examiner  
Tech. Center 1700